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PATENT COOPERATION TREATY

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PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

REC'D 29 MAR 2004

Applicant's or agent's file reference J3699(C)/hkk	FOR FURTHER ACTION See WIPO PCT See Article 36 of the Treaty of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/06211	International filing date (day/month/year) 12.06.2003	Priority date (day/month/year) 21.06.2002
International Patent Classification (IPC) or both national classification and IPC A61K7/08		
Applicant UNILEVER PLC et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).



These annexes consist of a total of sheets.

EPO - DG 1

04.06.2004

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

(104)

Date of submission of the demand 19.11.2003	Date of completion of this report 26.03.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 T x: 523658 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Werner, S Telephone No. +49 89 2399-7640 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/06211**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-36 as originally filed

Claims, Numbers

1-18 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application; the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-18
	No: Claims	
Inventive step (IS)	Yes: Claims	1-18
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-18
	No: Claims	

2. Citations and explanations

see separate sheet

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EXAMINATION REPORT - SEPARATE SHEET**

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Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: WO-A-0219976
D2: WO-A-9925312

2. This international application presently claims

- a hair conditioning composition
 - kept at pH 8 or less, comprising
 - A 0.01-10 wt.% of a cationic surfactant
 - B 0.01-10 wt.% of a C8-C22 alcohol
 - C 0.001-5 wt.% of a hydrophobically modified clay and
 - D water, wherein
 - the weight ratio A:B is from 1:1 to 1:10 (claim 1),
- a method comprising the application of a respective composition to hair (claim 14) and
- the use of hydrophobically modified clay for imparting conditioning benefits to hair (claim 15).

3.1 Document D1, which is considered to represent the most relevant state of the art, discloses in example 8 (compare examples 7 and 9) a rinse-off hair conditioning composition, kept at pH 3-7, comprising (A) 0.64 wt.% of ditallow dimethyl ammonium chloride, (B) 2 wt.% of a mixture of cetyl and stearyl alcohol and (D) water, from which the subject-matter of claim 1 differs in that different particles (C) are used.

3.2 Although D1 lists clays as appropriate particles to be included in hair conditioning

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compositions (D1: page 7, line 10), the hair conditioning benefit of the particular particles used in the present application cannot be inferred from the prior art.

- 3.3 Document D2 is concerned with suspensions containing polysaccharides. It is there suggested to include hair conditioning agents in the compositions provided (page 9, lines 14-23) and example 5 discloses a rinse-off hair conditioning composition comprising components A-D: (A) 3 wt.% of the cationic surfactant stealkonium chloride, (B) 2 wt.% of cetyl alcohol, (C) 0.034 wt.% of the hydrophobically modified clay quaternium-18 bentonite (Tixogel[®] MP 100; 3.4 parts of 100 parts from example 3 contributing to example 5 by 1 wt.%) and (D) water. But, since the weight ratio of A:B does not meet the specifications set in claim 1, the subject-matter of claim 1 is novel over the disclosure of D2.
- 3.4 From the disclosure of the prior art, no incentive can be inferred to restrict the weight ratio of cationic surfactant to fatty alcohol in rinse-off hair conditioning compositions. Nevertheless, it is stated in the application, that at least two effects are associated with this parameter (page 21, lines 13-16): eye irritancy and squeaky sensations. Therefore, the objective technical problem has been, how to reduce eye irritancy and how to avoid making the hair feeling squeaky. The solution proposed in present claim 1, the restriction of said weight ratio, is considered to imply an inventive step.
- 3.5 The subject-matter of claim 1 is therefore novel and does involve an inventive step (Article 33(2)(3) PCT).
4. Consequently, since the method of claim 14 comprises the application of a composition according to claim 1, the subject-matter of claim 14 is considered to be novel and to involve an inventive step (Article 33(2)(3) PCT).
5. The use of claim 15 is neither known nor suggested from the prior art. The subject-matter of Claim 15 is therefore considered to be novel and to involve an inventive step (Article 33(2)(3) PCT).